A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Prevention of Anaemia Among Adolescent Girls in Selected School of Srinagar, Jammu and Kashmir

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***Index Terms*—A quantitative research approach with a pre-experimental one group pre-test post-test research design was adopted to assess the effectiveness of a structured teaching programme on knowledge regarding prevention of anaemia among adolescent girls. The study was conducted in a selected Government Girls Higher Secondary School, Srinagar, Jammu and Kashmir. A total of 64 adolescent girls were selected using convenience sampling technique. Demographic variables included age, class of study, residence, type of family, family income, mother's education, father's education, mother's occupation, father's occupation, dietary pattern, and source of information. A self-structured knowledge questionnaire was used to assess the level of knowledge regarding prevention of anaemia.**

The findings of the study revealed that in the pre-test, 32.8% of adolescent girls had inadequate knowledge, 65.6% had moderately adequate knowledge, and only 1.6% had adequate knowledge. In the post-test, none of the participants had inadequate knowledge, 35.9% had moderately adequate knowledge, and 64.1% had adequate knowledge. The mean post-test knowledge score (32.59) was significantly higher than the mean pre-test score (17.94), with a mean difference of 14.65, which was statistically significant at $p < 0.001$. A significant association was found between pre-test knowledge and mother's educational status. The study concluded that the structured teaching programme was effective in improving knowledge regarding prevention of anaemia among adolescent girls.

***Index Terms*—Knowledge, Anaemia, Adolescent girls, Structured teaching programme, Prevention**

I. INTRODUCTION

Adolescence is a critical developmental phase characterized by rapid physical, psychological, and physiological changes. During this period, nutritional requirements increase significantly, particularly among adolescent girls due to growth spurts and the onset of menstruation. Anaemia, especially iron deficiency anaemia, is one of the most common nutritional problems affecting adolescent girls in India. Anaemia during adolescence adversely affects physical capacity, academic performance, immunity, and future reproductive health. According to the World Health Organization, adolescent girls constitute one of the most vulnerable groups for iron deficiency anaemia, particularly in developing countries. In Jammu and Kashmir, poor dietary intake, lack of awareness, and inadequate health education contribute to a high prevalence of anaemia among adolescents. Despite national nutrition programmes and iron supplementation initiatives, lack of knowledge regarding causes, symptoms, prevention, and dietary management of anaemia remains a major challenge. Structured teaching programmes play a vital role in improving awareness and promoting healthy practices. Hence, the present study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding prevention of anaemia among adolescent girls.

II. OBJECTIVES OF THE STUDY

• To assess the pre-test knowledge regarding prevention of anaemia among adolescent girls.
• To assess the post-test knowledge regarding prevention of anaemia among adolescent girls.
• To evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of anaemia.
• To find an association between pre-test knowledge and selected demographic variables.

III. METHODOLOGY

A quantitative research approach with pre-experimental one group pre-test post-test design was adopted for the study. The study was conducted in a selected Government Girls Higher Secondary School of Srinagar, Jammu and Kashmir. The population comprised adolescent girls aged 13–18 years. A total of 64 adolescent girls were selected using convenience sampling technique based on inclusion criteria. The tool used for data collection consisted of two sections: Section A: Demographic variables, Section B: Self-structured knowledge questionnaire on prevention of anaemia

The structured teaching programme included information on meaning, causes, signs and symptoms, dietary sources of iron, prevention, and management of anaemia. After conducting the pre-test, the structured teaching programme was administered. Post-test was conducted after five days using the same tool.

IV. FINDINGS OF THE STUDY

Section A: Frequency and Percentage Distribution of Adolescent Girls According to Socio-Demographic Variables

The demographic profile showed that the majority of adolescent girls (95.3%) were aged 16–18 years, with most residing in urban areas (70.3%). More than half of the participants (57.8%) belonged to nuclear families. A considerable proportion of mothers (32.8%) were illiterate, and the majority of mothers (90.6%) were homemakers, while fathers were mostly employed. Most families belonged to a lower to middle socioeconomic status. With regard to dietary pattern, the majority of adolescent girls (78.1%) consumed a mixed diet. Health personnel and mass media were reported as the primary sources of information regarding anaemia.

Section B: Frequency and Percentage Distribution of Level of Knowledge Regarding Prevention of Anaemia

The pre-test knowledge assessment revealed that 32.8% of adolescent girls had inadequate knowledge, 65.6% had moderately adequate knowledge, and **1.6%** had adequate knowledge. In the post-test, none of the participants had inadequate knowledge; **35.9%** had moderately adequate knowledge and **64.1%** had adequate knowledge regarding prevention of anaemia.

Table-2: Frequency and percentage distribution of pre-test and post-test knowledge levels

n =64

Knowledge scores	Frequency (pre-test)	Percentage% (pre-test)	Frequency (post-test)	Percentage %(post-test)
Inadequate	21	32.8%	0	0%
Moderately adequate	42	65.6%	23	35.9%
Adequate	1	1.6%	41	64.1%
Total	64	100	64	100

Section C: Effectiveness of Structured Teaching Programme

The mean pre-test knowledge score was 17.94 ± SD, whereas the mean post-test knowledge score was 32.59 ± SD. The calculated paired 't' value showed a statistically significant difference between pre-test and post-test scores at $p < 0.001$, indicating the effectiveness of the structured teaching programme.

Table: 2 Effectiveness of teaching programme on knowledge of study subjects regarding prevention of anaemia by comparing pre-test and post-test knowledge score

Type	Percentage%
Pre-test	65.7%
Post –test	91.4%
Effectiveness	25.7%

Section D: Association Between Pre-Test Knowledge and Demographic Variables

A statistically significant association was found between pre-test knowledge and mother's educational status ($p < 0.015$). No significant association was found with other demographic variables such as age, residence, family income, dietary pattern, or source of information, girls with their demographic variables at 0.05 level of significance, and research hypothesis.

H1 is rejected which states that there is significant association of pre-test knowledge score regarding prevention of anaemia among adolescent girls with their selected demographic variables viz (Age, Residence, Dietary pattern, Type of Family, Educational status of Father, Education status of Mother, Occupation of Father, Occupation of Mother, Monthly income of Parents, and Source of information at 0.05 level of significance.

H02; there is no significant association between pretest knowledge score regarding prevention of anaemia among adolescents' girls with their demographic variables at 0.05 level of significance.

V. LIMITATION OF THE STUDY

- The study was limited to one selected school
- Sample size was small
- Lack of control group
- Short follow-up period

VI. CONCLUSION

The study concluded that the structured teaching programme was highly effective in improving knowledge regarding prevention of anaemia among adolescent girls. Significant improvement in post-test knowledge scores highlights the importance of planned educational interventions in school settings. Regular health education programmes can help reduce the prevalence of anaemia and promote healthy dietary practices among adolescents.

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